

IN THE CLAIMS:

The claims are pending as follows:

1. (Previously Presented) A display device comprising:

a substrate having a display region and picture frame regions which are arranged outside the display region and surround the display region;

a plurality of data lines which extend in the first direction and are arranged in parallel in the second direction which crosses the first direction on the display region of the substrate;

a plurality of gate lines which extend in the second direction and are arranged in parallel in the first direction on the display region of the substrate;

a plurality of pixels which are arranged in a matrix and have a storage capacity in each pixel; and

a plurality of storage lines which extend in the second direction, are arranged in parallel in the first direction alternately with the gate lines in the display region of the substrate, and supply electricity to the storage capacity,

the improvement being characterized in that the substrate includes a plurality of connection terminals which are formed on a first side and are connected to an external circuit, first and second gate-line pull-around lines which are respectively formed on the picture frame regions at second and third sides close to the first side and pull out the plurality of gate lines in the direction toward the first side, and first and second common lines which are respectively formed on the picture frame regions at the second and third sides and connect the plurality of storage lines each other,

a gate wiring pattern which is constituted of the plurality of gate lines and the first and second gate-line pull-around lines and a storage wiring pattern which is constituted of the plurality of storage lines and the first and second common lines are formed into wiring patterns which do not cross each other.

2. (Original) A display device according to claim 1, wherein the storage lines are divided into a group which is close to the first side and a group which is remote from the first side, the group which is close to the first side is connected to the first common line, and the group remote from the first side is connected to the second common line.

3. (Original) A display device according to claim 1, wherein at least a portion of the plurality of storage lines is connected to the first common line and the second common line.
4. (Original) A display device according to claim 1, wherein the storage wiring pattern is formed in a pattern in which the storage lines are formed in a zigzag shape between the first and second common lines.
5. (Original) A display device according to claim 4, wherein the first common lines are formed in a plural number and the second common lines are formed in a plural number,
the display device includes an insulation layer which has contact holes at positions which overlaps the first common lines, and a first bridging line which is formed at a position which overlaps the first common lines by way of the insulation layer and connects the plurality of first common lines together, and
the display device further includes an insulation layer which has contact holes at positions which overlaps the second common lines, and a second bridging line which is formed at a position which overlaps the second common lines by way of the insulation layer and connects the plurality of second common lines together.
6. (Original) A display device according to claim 1, wherein the plurality of connection terminals includes a feeding pad for applying a voltage to the storage wiring pattern.
7. (Original) A display device according to claim 1, wherein the plurality of gate lines and the plurality of storage lines are formed of the same material and on the same layer.
8. (Original) A display device according to claim 1, wherein the display device includes a counter substrate which faces the substrate in an opposed manner and a liquid crystal layer which is sandwiched between the substrate and the counter substrate.

9. (Previously Presented) A display device comprising:

a substrate having a display region and picture frame regions which are arranged outside the display region and surround the display region;

a plurality of data lines which extend in the first direction and are arranged in parallel in the second direction which crosses the first direction on the display region of the substrate;

a plurality of gate lines which extend in the second direction and are arranged in parallel in the first direction on the display region of the substrate;

a plurality of pixels which are arranged in a matrix and have a storage capacity in each pixel; and

a plurality of storage lines which extend in the second direction, are arranged in parallel in the first direction alternately with the gate lines in the display region of the substrate, and supply electricity to the storage capacity,

the improvement being characterized in that the substrate includes a plurality of connection terminals which are formed on a first side and are connected to an external circuit, first and second gate-line pull-around lines which are respectively formed on the picture frame regions at second and third sides close to the first side and pull out the plurality of gate lines in the direction toward the first side, and first and second common lines which are respectively formed on the picture frame regions at the second and third sides and connect the plurality of storage lines each other,

a gate wiring pattern which is constituted of the plurality of gate lines and the first and second gate-line pull-around lines and a storage wiring pattern which is constituted of the plurality of storage lines and the first and second common lines are formed into wiring patterns which do not cross each other,

the plurality of connection terminals includes connection terminals which are relevant to the gate lines, connection terminals which are relevant to the data lines, and a feeding pad which applies a voltage to the storage wiring pattern, and

the feeding pad is formed between the connection terminals which are relevant to the gate lines and the connection terminals which are relevant to the data lines.

10. (Original) A display device according to claim 9, wherein the storage wiring pattern is integrally formed and is connected to the feeding pad.

11. (Original) A display device according to claim 10, wherein the storage wiring pattern is also connected to a second feeding pad which is arranged at a position different from the position of the feeding pad.
12. (Original) A display device according to claim 9, wherein the storage wiring pattern is divided in two portions, and one portion is connected to the feeding pad and the other portion is connected to a second feeding pad which is arranged at a position different from the position of the feeding pad.
13. (Original) A display device according to claim 9, wherein the display device includes a counter substrate which faces the substrate in an opposed manner and a liquid crystal layer which is sandwiched between the substrate and the counter substrate.
14. (Original) A display device comprising:
 - a substrate having a display region and picture frame regions which are arranged outside the display region and surround the display region;
 - a plurality of data lines which extend in the first direction and are arranged in parallel in the second direction which crosses the first direction on the display region of the substrate;
 - a plurality of gate lines which extend in the second direction and are arranged in parallel in the first direction on the display region of the substrate;
 - a plurality of pixels which are arranged in a matrix and have a storage capacity in each pixel; and
 - a plurality of storage lines which extend in the second direction, are arranged in parallel in the first direction alternately with the gate lines in the display region of the substrate, and supply electricity to the storage capacity,the improvement being characterized in that the substrate includes a plurality of connection terminals which are formed on a first side and are connected to an external circuit, first and second gate-line pull-around lines which are respectively formed on the picture frame regions at second and third sides close to the first side and pull out the plurality of gate lines in the direction toward the first side, and first and second common lines which are respectively formed on the picture frame regions at the second and third sides and connect the plurality of storage lines each other,

a gate wiring pattern which is constituted of the plurality of gate lines and the first and second gate-line pull-around lines and a storage wiring pattern which is constituted of the plurality of storage lines and the first and second common lines are formed into wiring patterns which do not cross each other,

a feeding line is formed on the picture frame region at the second side,

the first gate-line pull-around line and the first common line are formed on the picture frame region at the second side, and the first gate-line pull-around line is positioned between the first common line and the feeding line, and

the display device further includes an auxiliary common line which is insulated from the first gate-line pull-around line and electrically connects the first common line with the feeding line.

15. (Original) A display device according to claim 14, wherein the storage lines are divided into a group which is close to the first side and a group which is remote from the first side, the group which is close to the first side is connected to the first common line, and the group which is remote from the first side is connected to the second common line.
16. (Original) A display device according to claim 14, wherein the first common line and the second common line are connected with each other using at least a portion of the plurality of storage lines.
17. (Original) A display device according to claim 14, wherein the plurality of connection terminals include a feeding pad for applying a voltage to the storage wiring pattern.
18. (Original) A display device according to claim 14, wherein the plurality of gate lines and the plurality of storage lines are formed of the same material and on the same layer.
19. (Original) A display device according to claim 14, wherein the display device includes a counter substrate which faces the substrate in an opposed manner and a liquid crystal layer which is sandwiched between the substrate and the counter substrate.

20. (Original) A display device comprising:

a substrate having a display region and picture frame regions which are arranged outside the display region and surround the display region;

a plurality of data lines which extend in the first direction and are arranged in parallel in the second direction which crosses the first direction on the display region of the substrate;

a plurality of gate lines which extend in the second direction and are arranged in parallel in the first direction on the display region of the substrate;

a plurality of pixels which are arranged in a matrix and have a storage capacity in each pixel; and

a plurality of storage lines which extend in the second direction, are arranged in parallel in the first direction alternately with the gate lines in the display region of the substrate, and supply electricity to the storage capacity,

the improvement being characterized in that the substrate includes a plurality of connection terminals which are formed on a first side and are connected to an external circuit, first and second gate-line pull-around lines which are respectively formed on the picture frame regions at second and third sides close to the first side and pull out the plurality of gate lines in the direction toward the first side, and first and second common lines which are respectively formed on the picture frame regions at the second and third sides and connect the plurality of storage lines each other,

a gate wiring pattern which is constituted of the plurality of gate lines and the first and second gate-line pull-around lines and a storage wiring pattern which is constituted of the plurality of storage lines and the first and second common lines are formed into wiring patterns which do not cross each other,

a feeding line is formed on the picture frame region at the second side,

the first gate-line pull-around line and the first common line are formed on the picture frame region at the second side, and the first gate-line pull-around line is positioned between the first common line and the feeding line, and

the display device further includes an auxiliary common line which is insulated from the first gate-line pull-around line and electrically connects the first common line with the feeding line,

the plurality of connection terminals include connection terminals which are

relevant to the gate lines, the connection terminals which are relevant to the data lines, a first feeding pad which applies a voltage to the storage wiring pattern and a second feeding pad which applies a voltage to the feeding line, and

the first feeding pad is formed between the connection terminals which are relevant to the gate lines and the connection terminals which are relevant to the data lines, and the connection terminals relevant to the gate lines are formed between the first feeding pad and the second feeding pad.

21. (Original) A display device according to claim 20, wherein the storage wiring pattern is integrally formed and is connected to the first feeding pad.
22. (Original) A display device according to claim 21, wherein the storage wiring pattern is also connected to a third feeding pad which is arranged at a position different from positions of the first and second feeding pads.
23. (Original) A display device according to claim 20, wherein the storage wiring pattern is formed such that the storage wiring pattern is divided into two portions, one portion is connected to the first and second feeding pads and the other portion is connected to a third feeding pad which is arranged at a position different from positions of the first and second feeding pads.
24. (Original) A display device according to claim 20, wherein the display device includes a counter substrate which faces the substrate in an opposed manner and a liquid crystal layer which is sandwiched between the substrate and the counter substrate.